

## ABSTRACT OF THE DISCLOSURE

Techniques for determining root mean square (RMS) values of a signal for controlling operation of grid-linked converters, such as DC-to-AC inverters, via squaring the signal, sampling the squared signal  $n$  times during a cycle period to obtain  $n$  samples, summing the first  $n-1$  samples to obtain a first value, multiplying the first value by a sampling time and a frequency of the signal to obtain a second value, determining a compensation factor, adding the compensation factor to the second value to obtain a third value, and determining a square root of the third value to obtain a RMS result.

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